

# Invasive Alien Species

## Impacting the Aquatic Environment in Ireland

A person wearing a dark wetsuit is wading through a dense field of aquatic plants in a pond. The plants are green and appear to be a type of submerged macrophyte. The water is shallow and reflects the surrounding environment. In the background, there is a line of trees and some reeds.

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15<sup>th</sup> Eur-INBO Conference, Dublin

22<sup>nd</sup> September 2017



# Invasive Alien Species (IAS)

*Species introduced, through human action, outside their natural range whose presence threatens biological diversity, the environment, environmental services, the economy, human health ....*

The EC has recognised invasive species introductions as one of the main causes of natural biodiversity loss (second only to direct habitat destruction)



# Ireland – a small island on the western edge of Europe







**Aquatic Invasive Alien Species**  
**..... currently problematic in Ireland**





***Spartina anglica* (Common cordgrass)**





*Petasites fragrans* (Winter heliotrope)





*Heracleum mantegazzianum* (Giant hogweed)





*Impatiens glandulifera* (Himalayan balsam)





***Fallopia japonica* (Japanese knotweed)**





***Crassula helmsii* (New Zealand Pigmyweed)**



*New Zealand Pigmyweed (Crassula helmsii)*





*Elodea nuttallii* (Nuttall's pondweed)





**Rinerroon Bay, Lough Corrib pre-*Lagarosiphon major***





Rinnerroon Bay, Lough Corrib post-*Lagarosiphon* (2005)



2005	1,640 tonnes
2007	2,700 tonnes





*Dreissena polymorpha* (Zebra Mussel)





*Corbicula fluminea* (Asian clam)









# General Impacts of Invasive Alien Species

- Cost to economy





# Economic Cost of Invasive Species

*Estimated damage from IAS worldwide is \$1.4 trillion or 5% global economy  
\$1,400,000,000,000*

Total annual cost in the European Union is > €12 billion

Total annual cost in Britain is > £1.7 billion

Total annual cost in Ireland is > €266 million



# Impacts of Invasive Alien Species

- Cost to economy
- Biodiversity loss
- Introduction of pathogens (e.g. Crayfish plague, Ash dieback, Salmon fluke ....)
- Health & Safety implications
- Erosion and flooding
- Alter and degrade habitats
- Recreation and amenity
- Reduce property value





# Stopping the Introduction and Spread of IAS

## What is being done in Ireland (Europe)?

IAS are aggressive colonisers and successful competitors

.... can jeopardise the achievement of WFD (and other policy) objectives by reducing species diversity, damaging wildlife habitats and affecting attainment of conservation goals....

*Progressive policies + appropriate legislation → strategic management of IAS*

IAS recognised as significant threat to biodiversity in Ireland:

National Biodiversity Action Plan (2017 – 2021)

IAS Strategy for Northern Ireland (2013)

Valuing Nature: a Biodiversity Strategy for NI (2015 – 2020)



# Stopping the Introduction and Spread of IAS

*WFD characterisation process (2015) identified IAS as a significant issue for water management*

Hence, PoMs to tackle IAS included in for next cycle (2017 - 2021) of River Basin Management Plans - “Protecting water bodies from invasive alien species”

Key measures:

- implement the new EU Regulation on IAS (1143/2014)
- clear governance arrangements across public bodies, north and south
- develop national guidelines for biosecurity
- develop Management Plans for IAS listed in EU IAS Regulation

EPA funding national research projects on IAS



# Key Legislation and IAS in Ireland

NI - Wildlife and Natural Environment Act 2011



RoI - Wildlife Act, 1976 and Wildlife (Amendment) Act, 2000

- EC (Birds and Natural Habitats) Regulations 2011 – SI 477

Reg 49 – Prohibition on introduction and dispersal of listed species

*(Reg 50 – Prohibition on dealing in and keeping listed species)*

Currently, legislation not aligned to provide guiding policy on IAS management for the island of Ireland





# Legislation To Tackle IAS in Europe

## EU Regulation on “prevention and management of the introduction and spread of Invasive Alien Species” (No. 1143/2014)

Became a legally binding tool on 1/1/2015

Aim:       - to prevent, minimise and mitigate the adverse impacts of IAS on .....  
              - to tackle problem of IAS spread across borders in a coordinated way

All MS must - take measures for ED and RE of new incursions  
              - manage populations already widely spread

At core of Regulation is the list of “IAS of Union Concern”

- species that cause most damage to biodiversity
- concerted control measures are required across the EU





# IAS of Union Concern

Original list (37 species) adopted in August 2016

New list (49 species) adopted in July 2017

All 49 species now subject to restrictions on:

keeping

transporting

exchanging

growing

importing

selling

breeding

releasing

*Illegal to sell no. popular pond plants as of August 2017 (12 month rule)  
(i.e. Lagarosiphon, Cabomba, Lysichiton, Eichhornia)*





# EU Regulation on Invasive Alien Species

Is it working?

*Two new incursions of IAS of Union concern already tackled in Ireland (2016)*

**Coypu**  
*(Myocastor coypus)*



**Curly waterweed**  
*(Lagarosiphon major)*



*Rapid eradication at early stage of invasion (Article 17)*

- within 1 to 3 months NPWS implemented control/eradication measures



# Will the EU IAS Regulation Work for Ireland & Europe?

- Is good and timely legislation
- Has embraced ideas put forward by Ireland
- Strict timelines provided
- Rapid reaction by Ireland welcomed
- Has serious weaknesses
  - funding
  - must achieve complete and permanent control
- List of Union concern - too few?
- Enforcement and penalties
- Too early to see how 27 MS will interact / cooperate
- Brexit???





**Go Raibh Maith Agaibh**

**Thanks You**

